

Amendments to the Claims

Please amend the claim as follows:

Claims 1 – 18 (canceled)

Claim 19. (previously presented) In a SFN cellular broadcast system, means for implementing a bidirectional personalized channel with subscribers, comprising:

A. means for allocating a first group of subcarriers to a broadcast transmission and a second group of subcarriers to personalized channels;

B. Means for reducing interference in the broadcast channel using equalizer means;

C. means for reducing interference in the personalized channel using a controlled allocation of subcarriers in the second group of each subscriber.

Claim 20. (previously presented) The SFN cellular broadcast system according to claim 19, wherein said system uses OFDM modulation means.

Claim 21. (previously presented) The SFN cellular broadcast system according to claim 19, wherein said controlled allocation of subcarriers in the second group comprises the allocation of separate subcarriers to each of the subscriber units that are close to each other.

Claim 22. (previously presented) The SFN cellular broadcast system according to claim 19, wherein said controlled allocation of subcarriers in the second group comprises a measure of overlap in the allocation of subcarriers to each of the subscriber units that are close to each other.

Claim 23. (previously presented) The SFN cellular broadcast system according to claim 19, wherein said interference reducing means further include multipath reducing means.

Claim 24. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals; further including:

means in the base station for separate processing of ~~the~~ transmit broadcast data and ~~the~~ transmit personalized data in the frequency domain, and means for combining the broadcast and personalized data in the frequency domain, prior to conversion to ~~the~~ time domain for transmission.

Claim 25. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals; further including:

means in the subscriber unit for converting the received signals to the frequency domain, means for separating ~~the~~ broadcast data and ~~the~~ personalized data in the frequency domain, and means for separate processing of the broadcast data and the personalized data in the frequency domain.

Claim 26. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals; further including:

means in the base station for transmitting personalized data to each subscriber, comprising means for a transmission of signal orthogonal to ~~the~~ broadcast signals and to the signals transmitted from the subscriber units.

Claim 27. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals;

wherein the transmitting means further includes a personalized data channel which is inserted after ~~the~~ OFDM interleaver stages and in the frequency domain.

Claim 28. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals;

wherein the transmitting means further includes means for a dynamic allocation of subcarriers to personalized information.

Claim 29. (currently amended) In a broadcast SFN system using OFDM transmission from a base-station to subscriber units, means for achieving a bidirectional channel comprising:

transmitting means in the subscriber units for a transmission of signals orthogonal to ~~the~~ signals transmitted from the base station, and

receiving means in the base station for receiving the orthogonal signals;

wherein the transmitting means in the base station further includes means for separate processing of transmit broadcast data and ~~the~~ transmit personalized data in the frequency domain.

Claim 30. (previously presented) The broadcast SFN system according to claim 29, further including means for combining the processed transmit broadcast data and transmit personalized data, and means for converting the resulting signal to a time domain prior to its transmission.

Claims 31-32 (canceled)